

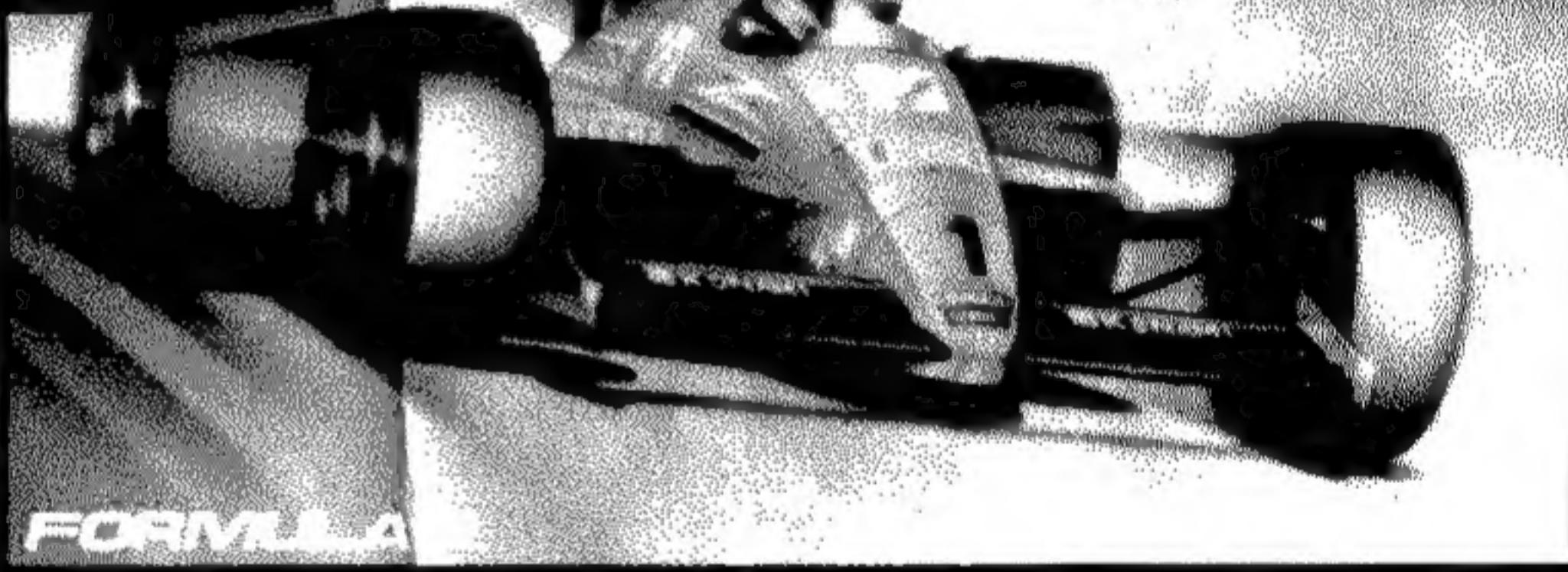


CHEQUERED FLAG™

c KONAMI 1988



MAX HP 300
MAX SPEED 250km/h
ENGINE CAPACITY 2500cc



FORMULA 1

MAX HP 1000
MAX SPEED 350km/h
ENGINE CAPACITY 1500cc



MAX HP 650
MAX SPEED 370km/h
ENGINE CAPACITY 5500cc

OPERATOR'S MANUAL

WARNING

'CHEQUERED FLAG' is an original game developed by KONAMI Industry Co., Ltd. KONAMI Industry Co., Ltd. reserves all the copyrights, trademarks and other industrial property rights with respect to this game.

Self Test (1)

When powered on, a memory test automatically starts.
Normal : "OK" will be displayed, and then the game will start.
Abnormal :"BAD" will be displayed and self test will repeat.

Self Test (2)

Use a test switch on the cabinet or the SW3 of the DIP SWITCH No.3 on the PCB(turn SW3 ON and OFF while in the game mode).

1)MEMORY CHECK

Memory test results are displayed after 30 seconds.

2)MAIN SELF TEST

I/O, SOUND AND COLOUR CHECK

- Turn the brake pedal, start switch, service switch and coin switch ON and OFF.
- Operate the shift lever to check LOW and HIGH.
- Step on the accelerator to check for a high value of 90H or more, and release to check for a low value of 3CH or less.
- Turn the steering wheel fully clockwise to check for a high value of AOH or more. Turn counterclockwise to check for a low value of 60H or less. Release and make sure it shows between 7CH and 84H.
- The start switch should always be flashing.
- Check steering wheel vibration by using shift lever.
- Press the start switch to change the sound code. When the figure is between 01H and 0CH, seat vibration is functional.
- Check the DIP switch settings.
- Insert a coin to check the coin counter.
- Adjust monitor brightness so that the second colour bar from the left can faintly be seen.

3)CROSS HATCH TEST

Press the test switch or turn ON and OFF DIP SW3 after going through the above main self test, and the screen shows a cross hatch pattern. Check distortion. Press test switch or turn DIP SW3 ON and OFF to return to game attract mode.

Play Instruction

- Deposit coin.
- Press start switch.
- Drive your car about the circuit and finish the race within the given time, while avoiding crashing into other cars or side barriers.
- When your car is damaged, that part of the car affected will flash. Make a pit stop for repairs.
- This game consists of 3 stages. When you cross the finish line, you progress to the next stage and a new car.
- The number of the laps in each stage is as follows :
 - 1st stage 3 laps
 - 2nd stage 4 laps
 - 3rd stage 3 laps

And the game ends after you have won all 3 stages.

- The game is over when :
 - 1)the timer shows '0' before you cross the finish line.
 - 2)your fuel runs out.
 - 3)your car explodes.
- You will be scored according to the distance covered.

Bonus points will be awarded according to your position at the finish line of each stage.

1st place	100,000points
2nd place	50,000points
3rd place	20,000points
4th place	10,000points
5th place	5,000points
6th place	1,000points
7th and worse	0points

Technical Information

(1) Required Power Capacity

GND-Vcc 5V4A or more

* Check voltage on the edge connector of the PCB
and make sure it shows +5.0 volts.

GND-(+12V)

* See Wiring Diagram.

(2) Output

R(red)analog positive

G(green)analog positive

B(blue)analog positive

SYNC H-V complexed TTL level, negative

(3) Use the volume knob on the PCB to adjust sound level. Turn clockwise for increased loudness.

(4) Handle with care.

Cabinet Information

Use a cabinet with a vertical monitor, a volume-controlled steering wheel, a volume-controlled accelerator, a brake pedal, a shift lever(LOW/HIGH) and a light switch for start.

It is recommended that a service switch and a test switch should also be equipped.

1) DIGITAL INPUT

a. BRAKE PEDAL.....Brake is effective when the switch is ON.

b. SHIFT LEVER.....OFF : LOW, ON : HIGH

2) ANALOG INPUT

Use a volume with resistance value between 1kΩ and 5kΩ, directly proportional to the turning degree. The volume level should show the following figures in the test mode.

a. STEERING WHEEL VOLUME

Neutral position: between 7CH and 84H

Fully clockwise from neutral position (approximately 140 degrees): A0H or more

Fully counterclockwise from neutral position (approximately 140 degrees): 60H or less

b. ACCELERATOR VOLUME

When stepped on: 90H or more

When released: 3CH or less

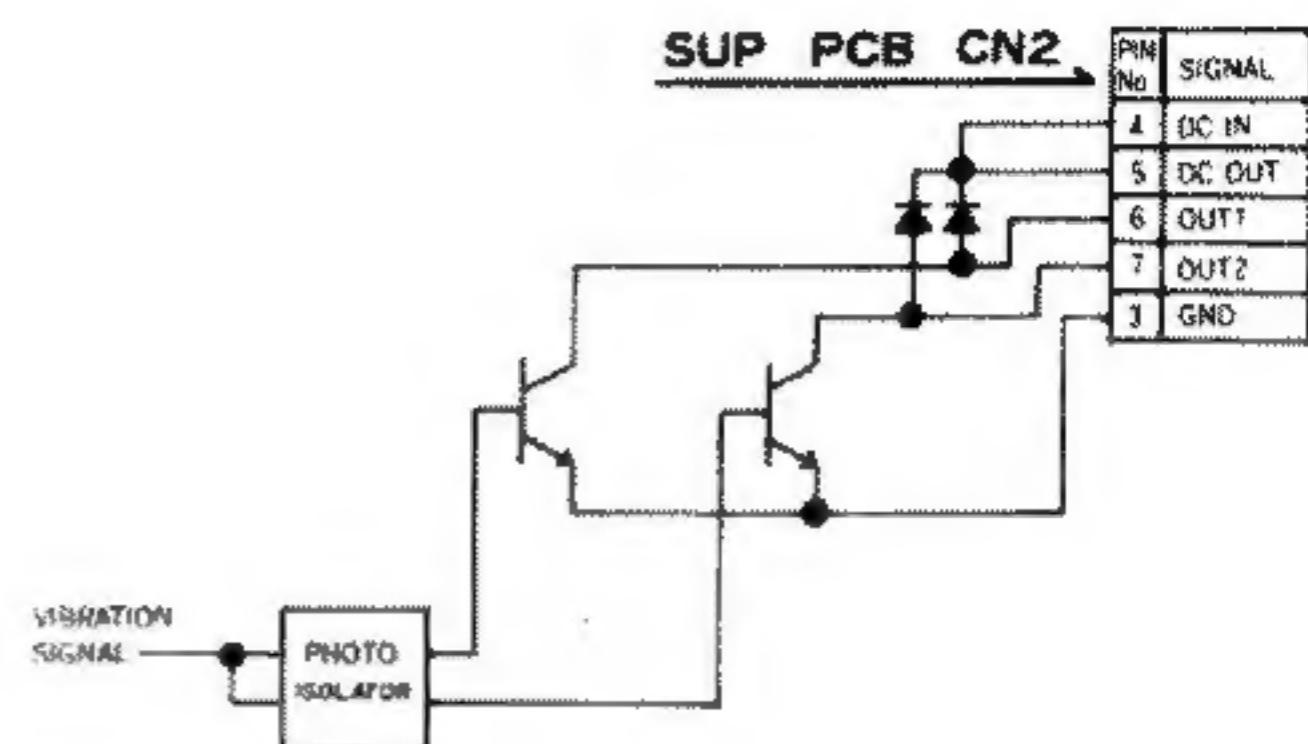
3) LIGHT SWITCH

Use a switch with the light of DC 12V, consuming electricity 500mA or less.

4) STEERING VIBRATION FUNCTION

This mechanism vibrates the steering wheel when the player crashes into other cars or drives on the shoulder of the road.

1. Equivalent circuit and specifications



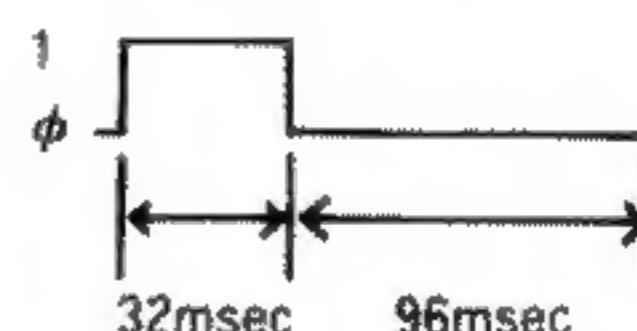
a) Voltage between DCIN and GND

DC +5V to DC +30V

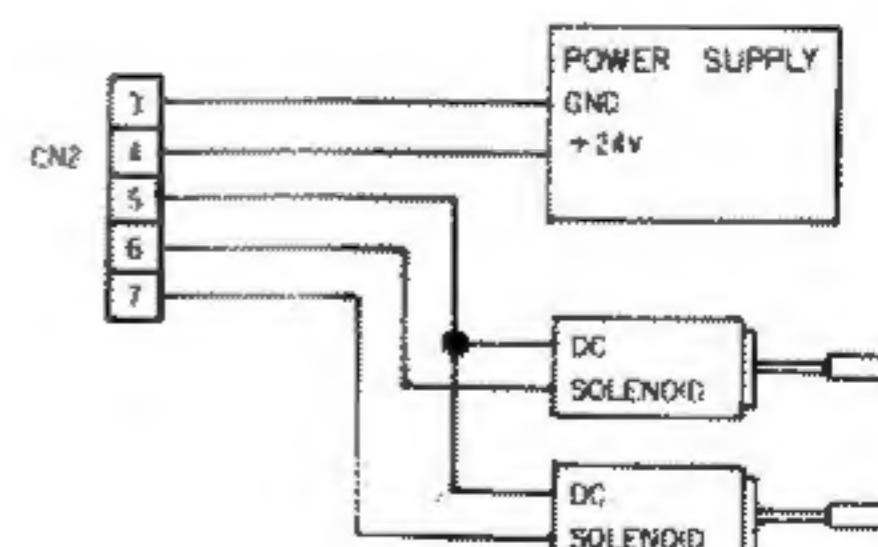
b) Input current capacity for OUT 1 and OUT 2

Maximum 2A for each port

c) Vibration signal timing



2. Example



6) SEAT VIBRATION FUNCTION

When a cockpit type cabinet is built, the seat vibration function is available by utilizing an AMP board which must be obtained separately. Refer to the wiring diagram.

DIP SWITCH No.1 SETTINGS

1. COIN SWITCH No.1 SETTINGS

SW	1	2	3	4	COIN	PLAY
○	OFF	OFF	OFF	OFF	1	1
	ON				1	2
	OFF	ON			1	3
	ON				1	4
	OFF	OFF			1	5
	ON				1	6
	OFF	ON			1	7
	ON				2	1
	OFF	OFF			2	3
	ON				2	5
○	OFF	ON	ON	ON	3	1
	ON				3	2
	OFF	OFF			3	4
	ON				4	1
	OFF	ON			4	3
	ON				FREEPLAY	
	OFF				FREEPLAY	
	ON				FREEPLAY	
	OFF				FREEPLAY	
	ON				FREEPLAY	

FREEPLAY: You can play games without coins.

2. COIN SWITCH No.2 SETTINGS

SW	5	6	7	8	COIN	PLAY
○	OFF	OFF	OFF	OFF	1	1
	ON				1	2
	OFF	ON			1	3
	ON				1	4
	OFF	OFF			1	5
	ON				1	6
	OFF	ON			1	7
	ON				2	1
	OFF	OFF			2	3
	ON				2	5
○	OFF	ON	ON	ON	3	1
	ON				3	2
	OFF	OFF			3	4
	ON				4	1
	OFF	ON			4	3
	ON				VOID	
	OFF				VOID	
	ON				VOID	
	OFF				VOID	
	ON				VOID	

DIP SWITCH No.2 SETTINGS

1. DIFFICULTY OF THE GAME

SW	6	7	DIFFICULTY
○	OFF	OFF	EASY
	ON		NORMAL
	OFF	ON	DIFFICULT
	ON		VERY DIFFICULT

2. SOUND IN ATTRACTIVE MODE

SW	8	SOUND
○	OFF	OFF
	ON	ON

SW1 thru SW5 are not used.

DIP SWITCH No.3 SETTINGS

1. TITLE DISPLAY

SW	2	TITLE
○	OFF	CHEQUERED FLAG
	ON	CHECKERED FLAG

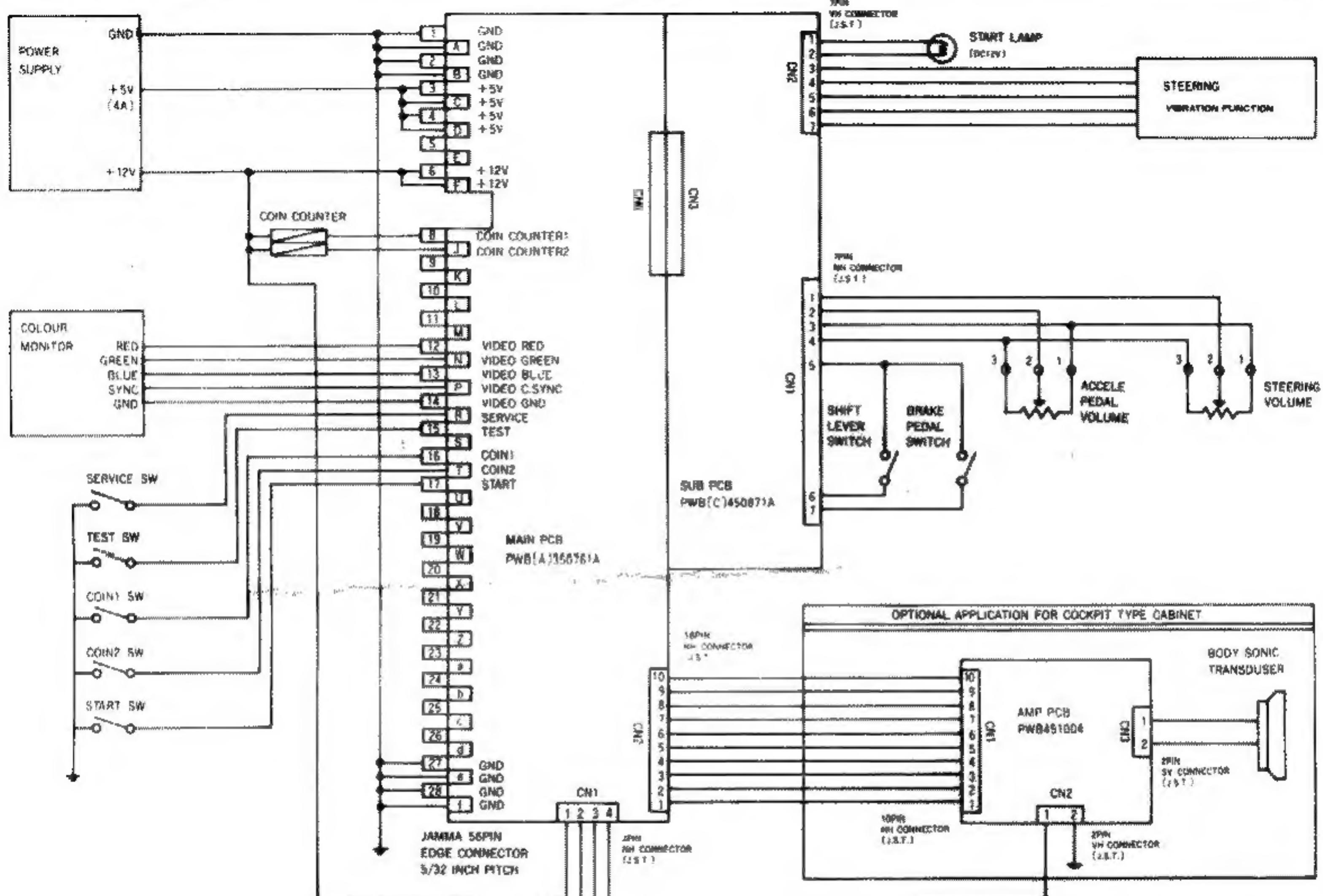
2. CHANGE OF MODE

SW	3	MODE
○	OFF	GAME
	ON	TEST

SW1 and SW4 are not used.

○ shows recommended settings.

WIRING DIAGRAM



NOTE:

SURGE KILLER DIODES FOR COIN
COUNTER INSTALLED ON PCB

